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○ Exhibit F

# Memo

**To:** Morgan Case  
**From:** Stuart VanGreuningen *SV*  
**Date:** August 25, 2008.  
**Re:** Measurement at Cocalalla Lake

The elevation measurements taken at Cocalalla Lake were done on October 11, 2006. The measurements were taken with 2 Thales Promark3 units. The specifications sheet for the units is attached. The data was then processed using CORS reference stations located in Spokane, WA, station spn1 and in Polson, MT, station pls1 using the NAD83 system.

A kinematic survey of the water level was done at the location. The receivers were in place for approximately 3 hours and 15 minutes. A receiver was placed on each side of the bridge near the staff gage. The receiver on the south side of the bridge was restarted after 1 hour as it was knocked over during the process of fastening the lower part of the staff gage which had come loose.

Measurements from the corrected data and reference stations are as follows:

Name	Description	Long	Lat	Ortho height	Status	Constraints	Surv_Horz_Co	Surv_Height_Co	Type
SBRD	Cocalalla-s	116° 36' 54.716"	48° 08' 35.7021"	2207.645	Adjusted	None	0.254	0.182	Logged
SBR2	Cocalalla-s	116° 36' 54.712"	48° 08' 35.7102"	2207.578	Adjusted	None	0.254	0.182	Logged
NBRD	Cocalalla-n	116° 36' 54.606"	48° 08' 35.2141"	2207.630	Adjusted	None	0.254	0.182	Control
SPN1		117° 25' 25.257"	47° 31' 06.0627"	2423.491	Adjusted	Horz & Vert	0	0	Control
PLS1		114° 06' 50.078"	47° 39' 49.5533"	3247.439	Adjusted	Horz & Vert	0	0	Control

# ProMark3 Technical Specifications

## GNSS Characteristics

- 14 parallel channels
- L1 C/A code and carrier
- Integrated real-time WAAS/EGNOS
- Update rate: 1 Hz
- Protocol: NMEA0183
- RTCM SC-104 version 2.1

## Accuracy Specifications<sup>1</sup>

- Static Survey Performance (rms)
- Horizontal: 0.005 m + 1 ppm (0.016 ft + 1 ppm)
- Vertical: 0.01 m + 2 ppm (0.032 ft + 2 ppm)
- Azimuth: < 1 arc second

- Observation Time: Ranges from 4 to 40 minutes depending on distance between ProMark3 receivers and other environmental factors<sup>2</sup>

## Kinematic Survey Performance

- Horizontal: 0.012 m + 2.5 ppm (0.039 ft + 2.5 ppm)
- Vertical: 0.015 m + 2.5 ppm (0.049 ft + 2.5 ppm)
- Recommended Initializer Bar Occupation: 5 minutes

## Real-Time Performance<sup>1</sup>

- SBAS (WAAS/EGNOS) (rms)
- Horizontal: <1m (3ft)
- DGPS (Beacon or RTCM) (rms)
- Horizontal: <1m (3ft)

## Datalogging Characteristics

### Recording Interval

- 1 - 30 seconds

### Internal Memory Capacity

- Up to 72 hours of 10 satellite data @ 1 second interval

## Physical Characteristics

### Size

- Unit: 19.5 x 9 x 4.6 cm (7.7 x 4.6 x 1.8 in)
- Antenna: 19 x 9.6 cm (7.5 in DIA x 3.8 in H)

### Weight

- Unit: 0.48 kg (1.05 lb) with battery
- Antenna: 0.45 kg (1.00 lb)

### User Interface

- Full color advanced TFT liquid crystal display with backlight
- 320 x 240 resolution with 262,144 colors
- Resistive touch panel
- Keyboard with backlight 20 buttons
- Audio: built-in speaker

## Memory

- 128 MB SDRAM, 128 NAND Flash memory
- Removable SD Card: up to 1 GB

## Interface

- RS232
- USB: host and slave
- Bluetooth wireless technology
  - Specification 1.2 compliant
  - Point-to-point and point-to-multi-point
  - Profiles: serial port, OBEX, dial up networking

## Environmental Characteristics

### Receiver

- Operating Temp: -10°C to 60°C (14°F to 140°F)
- Storage Temp: -20°C to 70°C (-4°F to 158°F)
- Weather: Water-resistant
- Shock: 1.5 m (4.9 ft) drop on concrete

### Antenna

- Operating Temp: -55°C to 85°C (-67°F to 185°F)
- Weather: Waterproof
- Shock: 2 m (6.6 ft) drop on concrete

## Power Characteristics

- Battery type: 3.7 V Li-Ion, 3900 mAh
- Battery life: 8 hours (typical operation)
- External power for extended operation time

## Field Software Tools

- GPS utilities
- Bluetooth Manager
- System / Data Back-up / Restore

## Receiver Language Support

- English, French, German, Spanish, Italian, Portuguese, Finnish, Swedish, Dutch, Custom language<sup>3</sup>
- Russian
- Chinese

## Accessories

### Standard System Accessories

- Clip-on I/O Module with power, USB and RS232 ports
- Universal AC adapter
- Stylus (2)
- Hand strap
- Carrying case
- USB data cable
- 32 MB SD memory card
- Padded field bag
- HI measurement device

## Optional Accessories

- External Power kit
- Dual-slot battery charger
- USCG/IALA Beacon receiver
- Emissions Certification
- Immunity (EN 55022 Class B)
- Susceptibility (EN 50082-1)
- FCC and CE certified

## Office Software Suite

### Survey: GNSS Solutions Software

#### Key software functions include:

- Integrated transformation and grid system computations allow for processing, adjusting, reporting, and exporting point positions in user-selected or user-defined systems
- Pre-defined datums along with user-defined capabilities using the 7-parameter method of computing and applying datum transformation parameters
- Survey mission planning
- Automatic vector processing
- Least-squares network adjustment
- Data analysis and quality control tools
- Coordinate transformations
- Geoid 03

### GIS: MobileMapper Office

#### Key software functions include:

- Feature Library Editor
- Background Map Creation
- Job Creation and Editing
- Differential Correction
- GIS Data Display and Editing
- GIS Import/Export: ESRI .SHP, MapInfo .MIF and AutoDesk .DXF import/export and .CSV export

## System Requirements

- Windows® 2000 / XP
- Pentium® 233 min
- 64 MB RAM min, 128 MB recommended
- 200 MB hard disk space required for installation

<sup>1</sup> Prism technology impact varies on satellite conditions and may not apply at all time in all area in the world.

<sup>2</sup> Limitations based on character availability may apply. Localization is under distributor's responsibility.

<sup>3</sup> Accuracies assume minimum of five satellites, following the procedures recommended in the product manual. High-multipath areas, poor satellite geometry, and periods of high-activity atmospheric conditions will degrade accuracy. Post-processing with GNSS Solutions Software. Accuracy and RTTFF specifications based on tests conducted in Nantes and Moscow. Tests in different locations under different conditions may produce different results.

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Magellan follows a policy of continuous product improvement; specifications and descriptions are thus subject to change without notice. Please contact Magellan for the latest product information.  
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